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PECAN PLANTER'S PRACTICAL POINTERS

FIFTH EDITION



'SUCCESS'

BECHTEL
....PECAN....
NURSERIES

THEO. BECHTEL, Proprietor

OCEAN SPRINGS, :: :: :: MISSISSIPPI

"Multum in Parvo"

In the following pages we have endeavored to condense all the information necessary to successful Pecan culture. The wonderful and still increasing interest in the Pecan industry is sufficient evidence of the immense popularity of this nut, and the number of questions asked by prospective planters is an indication that they are seeking the knowledge which we have obtained through over twenty-five years' experience in orcharding as well as propagating, packing and shipping trees. The mistakes usually made by amateurs may be wholly avoided if the following notes are carefully studied. In the preparation of this fifth edition we have made but few changes in or additions to the fourth. The propagation of trees is not outlined in these pages, as that comes under the head of nursery work, while these instructions are especially intended for the orchardist. As a rule the orchardist is neither prepared nor has he the time or inclination to wait until he can propagate the trees for his own use, therefore does better to secure good healthy stock grown by some nursery of established reputation.

SELECTION OF LAND.

As this is one of the most important items, we mention it first. The Pecan, like the hickory, thrives on a great variety of soils, but seems to do best where the subsoil is moderately porous and is mixed with some sand or gravel. Good drainage, either natural or artificial, is very essential; though after trees are well established, a temporary overflow, even of several weeks' duration, will do no harm. River and creek-bottom lands give splendid results, but do not produce nuts so early as the uplands. Nearly all of the cut-over pine lands of the South will produce very profitable, early-bearing Pecan orchards, if well fertilized.

CLIMATE.

Just how far north these choice varieties of Pecans are hardy has not yet been proven; though experiments are being made as far north as Illinois. There is no doubt that they will succeed anywhere south of the Mason and Dixon line, where land is suitable.

SELECTING VARIETIES.

Send for samples, and choose good-sized, soft-shelled, well-filled nuts, with a rich kernel, and do not forget that productiveness should be a leading feature. There are many good nuts, but when planting an orchard as long-lived as the Pecan, too much care cannot be exercised in the selection of varieties. The mere fact that a nurseryman has grafted stock is no guarantee of quality, as wood of the best varieties, either for budding or grafting, remains high-priced; therefore, thousands of trees are grafted to comparatively inferior varieties by unscrupulous propagators and sold at a "cut-rate" to the inexperienced planter.

SIZE OF TREES TO PLANT.

While small-sized Pecan trees will eventually give as good results as larger ones, there is a saving of time by planting trees from 3 to 6 feet in height, or larger if obtainable. Very large trees receive a greater check in transplanting, and, therefore, do not save so much time, in proportion, as a medium-sized tree. For shipping long distances, the medium and smaller sizes should be used.

TIME TO PLANT.

Whenever trees are dormant and ground is not frozen; the best

PRICE LIST

Grafted Pecan Trees

SUCCESS	DELMAS	MONEYMAKER	VAN DEMAN	SCHLEY	STUART
	FROTSCHER	PABST	RUSSELL		
	Each	Dozen	Hundred	Thousand	
1 to 2 Feet	\$.55	\$5.50	\$45.00	\$400.00	
2 to 3 Feet	.75	7.35	55.00	500.00	
3 to 4 Feet	.95	9.35	71.00	685.00	
4 to 5 Feet	1.10	11.55	82.00	800.00	
5 to 7 Feet	1.50	14.30	105.00	1000.00	
7 to 9 Feet	2.00	22.00	175.00	1700.00	
9 to 11 Feet	2.50	27.50	225.00	2000.00	

Large, select nuts for seed or samples, \$1.00 per pound, postpaid.

TERMS: One-fourth cash with order, to warrant us in reserving trees for future delivery; balance before shipment.

☞ All quotations are for immediate acceptance, subject to stock being sold and without liability to us should injury befall the stock from frost, hail, fire or other causes beyond our control.

Our trees are grown on newly cleared land, which is free from noxious weeds and grasses.

Long years of experience in packing and shipping trees makes it possible for us to deliver the trees in prime condition to any part of the United States; we also ship across the ocean and have yet to receive the first report of stock arriving in bad order.

A certificate of inspection given by the state entomologist will accompany each shipment, showing our nurseries to be free from San Jose scale and other pernicious diseases.

"The Nut Grower," a monthly magazine, given as premium—to new subscribers only—for one year, with orders amounting to \$ 0 00 and over. Sent on request.

Samples of nuts sent postpaid on receipt of 10c for each variety wanted. This amount to be deducted from first order amounting to as many dollars as the number of samples sent.

Record of Van Deman pecan tree planted February, 1900: Began bearing in 1903 but no record of nuts kept until 1910.

1910	100 lbs	Circumference	32 inches	Spread	33 ft
1911	60 lbs	"	36 inches	"	36 ft
1912	70 lbs	"	40 inches	"	40 ft
1913	185 lbs	"	45 inches	"	45 ft

CITRUS FRUITS ON CITRUS TRIFOLIATA STOCK.

As it is generally best to cut back all citrus trees 40 to 50 per cent. when transplanting this will be done at the nurseries before shipping, as a rule. We therefore grade sizes of all, excepting kumquats, by caliper.

SATSUMA ORANGE AND DUNCAN GRAPE FRUIT.

Approx. Height before pruning	Caliper 2 inches above bud	Each	12	100	1000
20 to 24 inches	1-4 to 5-6	30c	\$3.30	\$24.00	\$225.00
2 to 3 feet	5-16 to 3-8	40c	4.40	34.00	325.00
3 to 4 feet	3-8 to 1-2	55c	6.00	47.50	450.00
4 to 5 feet	1-2 to 5-8	65c	7.00	57.50	550.00
5 to 7 feet	5-8 to 3-4	75c	8.25	65.00	600.00

KENNEDY LEMON, KUMQUAT AND NAVAL ORANGE.

1 to 2 feet, 35c each	2 to 3 feet, 50c each	3 to 4 feet, 75c each
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Our nurseries are located just outside of the corporate limits, east of Ocean Springs, on Holcomb and Palmetto Boulevards. Office and residence on Porter Ave., one-half block east of Jackson Avenue, Ocean Springs, Miss. Residence and office Phone No. 70. Nurseries Superintendent Phone No. 2302.

Bechtel Pecan Nurseries, Ocean Springs, Miss.

THEO. BECHTEL, Proprietor

Member of National Nut Growers' Association, also American Association Nurserymen and American Pomological Society.

Beulah Faxon Winton, Miss.

time being as soon as possible after the leaves drop, which is usually about December 1st here.

HEELING IN TREES.

Upon receipt of trees unpack at once, open bundles and separate the trees sufficiently that they may be heeled in and roots well protected from sun and wind until permanently planted. Select a convenient place near the place the trees are to be planted. Place the trees in a trench leaning them toward the south about at an angle of forty-five degrees and cover the roots carefully with fine soil that will sift in among the roots and bank well up on the stems. They will then be safe until planted even though they should remain there for several weeks.

DIRECTIONS FOR PLANTING.

Make holes large enough to accommodate roots spread out in natural position, being careful to cut off, with a sharp knife, all those broken or mashed. Plant trees the same depth they stood in the nursery, filling in among the roots with mellow surface soil, with which, if too poor, some well-rotted barn-yard manure or commercial fertilizer should be incorporated. Settle the soil very firmly with a smooth ram-pole (being careful not to injure the roots), unless very wet; in which case use water to settle the soil into all the crevices. Leave two inches of loose soil on the surface and fill up an inch or two high around the stem to allow for settling. Fine ground bone is one of the best and safest commercial fertilizers to mix with the soil for planting, 2 to 4 pounds according to size of the tree.

FERTILIZING.

Soil not naturally strong should be fertilized with sufficient manure, or some commercial fertilizer, to produce a good crop of corn or cotton, while orchard is young. Care should be used never to allow any crude or unrotted fertilizer of any kind to come in contact with the roots. When trees arrive at bearing age, more potash should be applied.

Sow cowpeas or velvet beans in all orchards not used for some other cultivated crop, but keep the vines off the trees. Plow under while trees are small, and graze down with stock when trees get large enough to be out of danger.

CULTIVATION.

Cultivation should be shallow and frequent enough to keep surface very finely pulverized in a dry season, and free from weeds or grass when rainy. Be careful not to draw the dirt away from the collar of the tree and expose it to the sun. It is best to break the entire ground before or soon after setting trees, and plant in some cultivated crop, such as cotton, corn, potatoes, melons, peanuts or other merchantable produce, being careful not to plant anything large within six feet of the trees. Never put in oats or other small grains, excepting as winter cover crop. Where it is cheaper to keep the soil moist and mellow, and the weeds smothered with heavy mulch, than to cultivate continually, apply, as soon as possible after planting, any available litter; but where field-mice abound the stem of the tree must be kept clear. Under all circumstances, cultivate until mulch is obtainable, if not on hand at planting time. Intensive trucking is an ideal culture for young Pecan orchards.

DISTANCE.

Distance to plant should be from 40 to 70 feet, according to character of soil, the former applying to the poorer and sandy piney woods lands, on which Pecan trees begin bearing quite young, the latter to alluvial and bottom-lands. A very good plan is to plant 35x66 feet and cut out alternate trees as soon as they begin to touch. The advantages of this method are, the protection the trees afford each other and the greater production for the first fifteen or twenty years, as the trees should have produced at least 1,000 pounds of nuts, each, by that time. The roots extend about twice as far as the branches in each direction.

PRUNING.

When transplanting large Pecan trees, at least three-fourths of the top should be cut away, and of smaller trees about one-third. A six foot tree should be cut down to about four feet. It is also of the greatest importance that the young shoots on the stem be allowed to remain for a few seasons, or until the tree gets stocky and well established, pinching back during the summer so that no large branches grow below where the head is wanted. A common mistake is to keep all the sprouts off the stem, thus making the young tree become spindling, top-heavy and bent over, or perhaps hide-bound and stunted, requiring a support to keep it upright until it recovers from the unnatural method of pruning. Nature never prunes a limb off the stem of a young Pecan tree until well shaded. Subsequent pruning is seldom necessary, excepting to shape the tree correctly. To get best results, these points must be remembered.

INSECT ENEMIES.

The statement made by some that the Pecan has no insect foes is a mistake; though the damage to the crop thus far has been so slight that there are reasons for the casual observer to believe that this tree is exempt. The bud worm has done more or less damage in the nurseries and newly planted orchards by eating the buds and tips of the new growth. Spraying with arsenate of lead often enough to keep the foliage and buds well coated with the poison is effectual for all leaf-eating or chewing insects.

Worms or caterpillars working in clusters may be easily destroyed by hand, or with a torch on a long bamboo pole. For further directions send to Mississippi Agricultural Experiment Station, Agricultural College, Miss., for bulletin on "Insects Injurious to Pecans."

CUTTING THE TAP-ROOT.

Experiments have proven that a transplanted tree with the tap-root cut will grow as well, and bear equally as early and abundantly, as when grafted where the seed was planted, and the roots left undisturbed.

MUST PECANS BE GRAFTED?

The experience of the past thirty years has shown that Pecan trees, as well as pears, peaches, apples, etc., must be budded or grafted to perpetuate given varieties, and that only a small percentage of seedlings will come similar, while most of them will be inferior to the parent.

GROWTH OF TREES.

Pecan trees well cared for should increase in diameter about 1 inch each year after the first year from transplanting if large sized

trees are used. Smaller ones in proportion after they become established.

TIME OF BEARING.

A 5 to 6 foot grafted tree, transplanted and given the best of care, will usually bear a few nuts after three years. There are trees in this vicinity that were profitable at five years, and at seven years after planting bore thirty pounds of nuts, while neglected trees are often unprofitable at ten to twelve years after planting. This is on pine lands, hammock and other uplands,—bottom, or any heavy alluvial soils requiring about five years longer. Seedlings have been known to stand twenty-five years or more before bearing.

Profitable crops from the prolific varieties such as the "Success" and "Stuart" can usually be counted upon soon after the trees attain size enough to carry such a crop which would be when six to eight inches in diameter. Therefore it is important to push the growth as much as possible.

AVERAGE YIELD.

When trees have been planted in orchards:

6 years, 4 lbs. per tree	12 years, 45 lbs. per tree
7 years, 10 lbs. per tree	13 years, 55 lbs. per tree
8 years, 15 lbs. per tree	14 years, 65 lbs. per tree
9 years, 20 lbs. per tree	15 years, 80 lbs. per tree
10 years, 25 lbs. per tree	20 years, 125 lbs. per tree
11 years, 35 lbs. per tree	25 years, 150 to 300 lbs. per tree

Note—While the above may be termed an average yield of the average planter, we have known a tree to yield 30 lbs. when planted 7 years and in autumn of 1910 gathered 100 lbs. from a tree planted in our garden in 1900. These nuts were worth \$60. Eighteen such trees on an acre would give the enormous revenue of \$1,080.00 for one crop. The revenue at 20 cents per lb. would be a very profitable one indeed. The average yield of this tree from 1910 to 1913 inclusive has been 105 lbs. per year.

PRICE OF NUTS.

We are often asked by intending investors, "What is the whole-sale price of Pecans?" Nuts, like any other article of commerce, are, of course, subject to market fluctuations. The average price the past few years has been about eight cents per pound for small wild nuts, and from this on up to fifty cents per pound for the large, choice, soft-shelled varieties.

PECANS AS AN INVESTMENT.

Replying to the question, "Is Pecan orcharding a profitable investment?" I can truthfully say, "YES." But settle it for yourself by carefully estimating the yield per acre and the price at which choice Pecans are now, or are likely to be sold for some time to come, and you will see why we are putting every dollar we can command into Pecan orchards. We think them very profitable at 25 cents per lb.

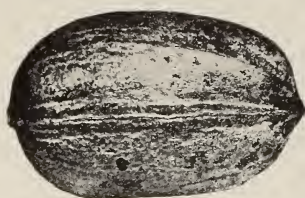
ENGLISH OR PERSIAN WALNUTS.

In answer to those inquiring about this nut, we can only say they have not proven a general success in the South, on account of a root disease; although there are individual trees now thriving. Even could this difficulty be overcome, the profit, though large, would not compare with that of the Pecan, which is superior in every way; hence far more popular in the market.

Description of the Leading Varieties

"SUCCESS"

This grand nut has probably attracted more attention than any other nut recently introduced. Though not the largest nut in existence, the kernel proved to be the heaviest in a test of fourteen lead-



ing varieties, made during a series of years. See table of comparison published in "Nut-grower" for September, 1906. Ovate in form, with thin shell of splendid cracking quality; kernel very plump and heavy; flavor excellent, color bright and form fine. We think it a little superior to any other Pecan we have ever cracked. Originated here in

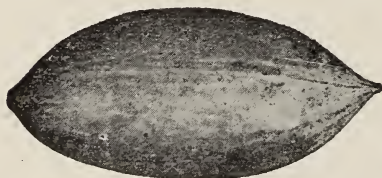
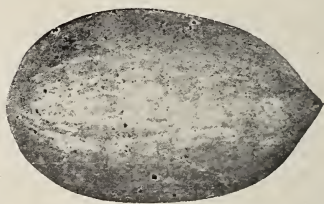
Ocean Springs, first propagated and introduced by us. Tree of good, sturdy growth and heavy annual bearer. Select nuts, forty to the pound, average forty-five. We have watched the original tree for twelve years, during which time it has never failed to bear. Keeping qualities the best. We believe this is becoming the great commercial variety for the Gulf States.

Note—In purchasing "Success" trees, we wish to caution the public, that there are at least two other trees in this vicinity that we know of besides the original genuine "Success" that have been propagated under the name of "Success." We are the only nursery firm ever granted the right to cut scions from the original "Success" tree.

When in the nursery business in Illinois we introduced the "Bechtel Double Flowering Crab" which took its place at the top of the list as the finest sweet scented hardy flowering tree in the United States. Now after twelve years of close testing and observation we believe the "Success" Pecan is growing to be the greatest commercial Pecan of the country. Our own orchards now contain over 100 acres of this variety alone.

STUART.

A well known, reliable sort, ovoid in shape, with slight point at apex; shell easily cracked, kernel good quality and fills the shell completely. Same weight as "Success." Heavy bearer.



VAN DEMAN

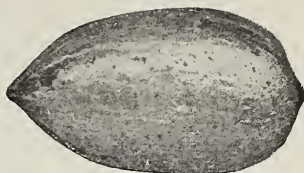
Large, oblong, pointed at apex; shell thin, cracking quality good; kernel full, fine quality and color; good bearer when highly fertilized

"SCHLEY."

Origin Jackson County, Mississippi; oblong, with small point at apex; medium to large; a choice paper-shell; kernel very good. Generally considered to be a shy bearer of very choice nuts.

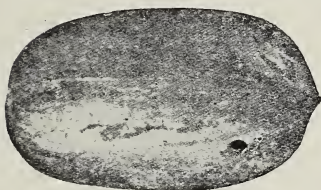
"RUSSELL"

Medium to large; a true paper-shell, short, oblong, pointed at apex; kernel sweet, but not oily. Origin, Ocean Springs, Jackson County, Miss.



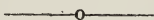
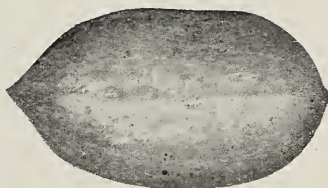
"PABST"

A splendid nut which originated here on the place of the late W. B. Schmidt. Named after the introducer. Oblong, blunt at both ends. Medium soft shell, kernel plump and quality No. 1. Tree grows to be quite large before it yields abundantly.



"FROTSCHER"

A well and favorably known nut, about same size as "Stuart" and very similar in form, but more angular. Shell thin, cracking quality good. Kernel of medium quality. A very handsome brown colored nut.



Planting Orchards On Contract

We will plant and care for orchards on your land or purchase lands and plant if desired on terms to suit the purchaser.

Grafting On Contract

Large or small trees grafted or budded to choice varieties on contract in any quantity. Having been very successful in top-working large orchard trees, we will guarantee all work done by us. State number and size of trees you have to be grafted, and we will submit estimates on same.

FIVE REASONS WHY YOU SHOULD PLANT PECANS.

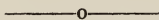
Because there is nothing that will yield so much clear profit as a well-cared for Pecan orchard of select grafted varieties.

Because, if you want to sell your farm, nothing will help more than a Pecan orchard.

Because, if you want to live on it, nothing will help you enjoy it more.

Because there is no danger of over-production and very low prices for the next fifty years.

Because there is no other crop you can raise which will yield as many bushels per acre of good, wholesome, nutritious food for either man or beast as Pecans.



MEDAL AND DIPLOMA was awarded us at the World's Fair, St. Louis, Missouri.

REFERENCES: Cashier Ocean Springs State Bank; also any reliable business house in Ocean Springs, also Agricultural and Mechanical College of Mississippi.

TESTIMONIALS and additional references furnished on application.

BECHTELPECAN.... NURSERIES

OCEAN SPRINGS, MISSISSIPPI

Recommended by Prof. B. G. Brackett, Pomologist of Agricultural Department, U. S. A.